



July 2016

RiverWatch

THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION, INC.
Protecting And Restoring The Rivers Since 1970

Connecting Kids with our Rivers

New NSRWA program introduces South Shore youth to estuarine marine science as we build the next generation of river stewards.

On June 14 and 23rd, 24 environmental science students from the South Shore Vocational Technical High School in Hanover and Rockland High School joined NSRWA science educators for two hours on the North River to introduce the science of our rivers. Thanks to a generous grant from the Battelle Corporation, these excursions were the first in a summer-long program of fully subsidized science trips on our pontoon boat.

As our partner, the South Shore Voc Tech chose participants, and handled logistics and transportation. Other partnerships are set with the South Shore Natural Science Center, MassAudubon, the South Shore YMCA, and the South Shore Stars of Weymouth – all while we continue our regular program of scenic EcoTours for members and other groups. Our pontoon boat will be busy this summer!

As the many events and excursions listed later in this newsletter illustrate, NSRWA offers a great variety of opportunities for members, families, and the South Shore public to experience and engage with our rivers and their watershed, of which these estuarine marine science learning tours are the newest. Many of you take advantage of these excursions, and we are sure you greatly enjoy your morning, afternoon or evening on the water or exploring the banks.

But our motives for organizing these events go way beyond providing a fun day! Assuring the future health of the North and South Rivers – and the watershed as a whole – requires a public that is educated in how the watershed works, and is engaged in its conservation.

That is our mission, and we consider nothing more important than engaging our larger community with the effort.



“Assuring the future health of the North and South Rivers requires a public that is educated and engaged.”



THE NORTH AND SOUTH RIVERS WATERSHED ASSOCIATION

The mission of the North & South Rivers Watershed Association is to preserve, restore, maintain and conserve in their natural state, the waters and related natural resources within the watershed.

Our goals are to:

- Restore the water quality of the rivers by identifying and correcting adverse impacts;

- Encourage stewardship of the watershed through public education, outreach and recreation programs; and

- Promote responsible growth by working in partnerships to preserve open space, scenic vistas and sensitive natural resources.

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Letter from the President



What Engagement Looks Like: Where the Hull Meets the Water

This year, our organization has been focusing on a few major areas, and - as mentioned in a previous letter - engagement has been at the forefront of our thinking. What does that look like where the rubber meets the road, or more appropriately, the hull meets the water? Sometimes that involves fundraising and the less glamorous work of keeping an organization going and connected to its members. However, in our glorious spring and summer months, it quite frequently involves activity and interaction with the water, with the goal of involving many constituencies.

One of our purposes is to provide multiple opportunities for that meeting ground between person and watershed, to inspire and engage the soul on multiple levels.

For some, it could be contemplative yoga at the river's edge (if the no-see-ums allow). For others, it's marveling at the spring herring run while counting fish. And some of the more competitive types will enjoy the Great River Race at the end of July. And then there are the kayak trips both scenic and instructional.

Our pontoon boat has been a great boon as well, providing access to a whole new range of activities that engage more people. Families have a chance to harvest clams at low tide, and sportsmen can try their hands at fly-fishing near the river's mouth. Birders have an opportunity to see new species, and photographers to capture a unique shot. Others can explore the geology, biology, or maritime history of the rivers.

Meanwhile, with a generous gift from Battelle, students from local schools and summer campers have been able to explore the area on science trips to the Spit, creating a new appreciation for the complexity and fragility of our ecosystems.

The beauty of our rivers is that they can be experienced in many ways in all seasons, but the warm months are truly special and we have been taking full advantage of them to get people out on the water with us. We are committed to engaging you as a community to join us in protecting, enjoying, and loving the watershed that helps give us a special sense of the place we all call home.

See you on the rivers!
Peter Kelly-Detwiler
NSRWA Board President

Thank you to New or Renewing River Guardian Circle Members

River Guardian Circle members are our most generous, making donations of \$500 or more. Their generosity is the foundation for making the NSRWA a strong and effective voice. Below are those who joined or rejoined since April 2016. Thank you!

Individuals

Digger & Susan Donahue
Craig & Daniel Hannafin
Valmai Hilton
Richard & Barbara Johnson
Dan & Karen Jones
Jean Jones and family
Edie & Dave Kirk
Richard & Jackie Leach

Patrick & Lee McCarthy
Adele Milani
Andrea Miller
Pieter & Susan Mimno
Sandra & Peter Moll
Kate Welch & Joseph Straub

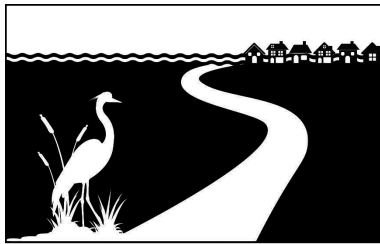
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Andrew G. Gordon Insurance
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Black Pond Veterinary Service
Horsley Witten Group
Kappy's Fine Wine and Spirits
Norwell Women's Club
Protectowire
Rockland Trust

Progress Around the Watershed

Friends of South River Park and Greenway Organized

NSRWA has long worked closely with many committed Marshfield allies to create a network of South River parks and trails. These include creating and landscaping South River Park; acquiring the 37.5 acre Pratt parcel on the north bank of the South River; planning for connecting south bank trails; and most recently designing and funding a canoe and kayak launch at the Keville Footbridge and adding trails and parking to the Pratt parcel.



Friends of the South River Park and Greenway

These initiatives will take constant vigilance to maintain, monitor and expand. To that end we are pleased to have helped to organize, support and participate in the Friends of South River Park and Greenway. There is an advisory board to be chaired by Susan Caron, a former Marshfield Open Space Chair who has been a driving force behind the South River Park and Greenway concept. Other members include: Karen O'Donnell and Sue MacCallum, both members of the Marshfield Open Space Committee; Jay Wennemer, Marshfield Conservation Agent; Dave MacDonald, professional organic landscaper; Susan and Michael Wolfe, Marshfield residents; and Betsy Appleby, Board member of Good Will Hunters, a nonprofit that supports community causes in Marshfield. The Friends group was approved by the Marshfield DPW to provide support to the town to develop a sustainable maintenance plan for the South River Park.

Using thoughtful and professionally guided landscape practices, the Friends seek to protect the investment made by the community in this park, protect and preserve the land that buffers the South River, provide ADA accessibility to riverfront views and Veteran's Honor Roll, and enhance the visual entry to Marshfield.

The park is in need of volunteers to help with mulching, weeding, removing Japanese Knotweed (an invasive growing on the banks of the South River in the park), and enhancing and maintaining the garden beds and meadow. If you are interested in volunteering to make the South River park a demonstration to the community of how we can live in harmony with our rivers, please contact our office.

Norwell and Hanover Water Supply and Impacts on Third Herring Brook

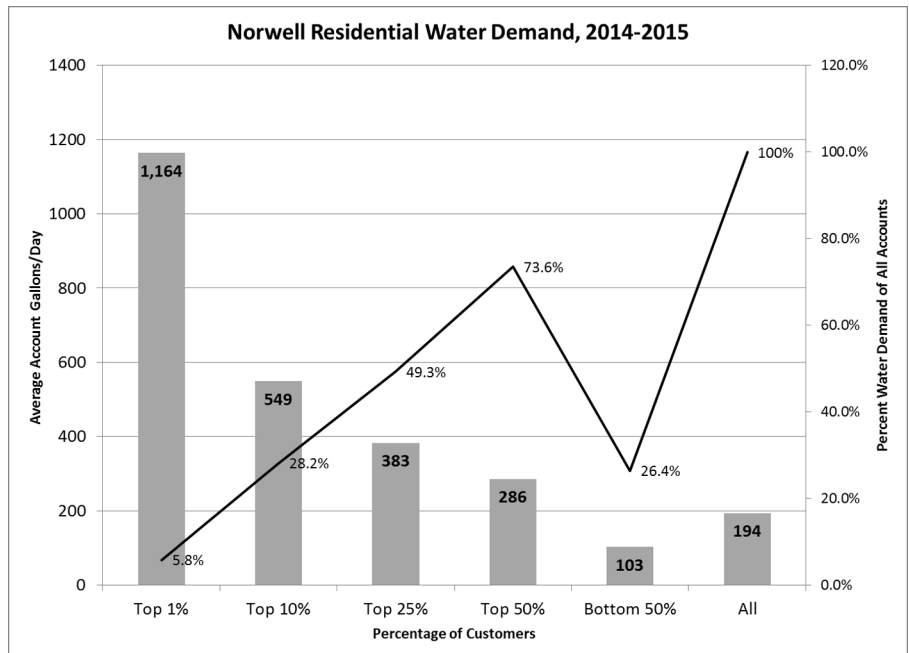
Our South Shore communities are the first in the state to renew their water withdrawal permits, and to implement new state regulations that require consideration of ways to improve stream flows in our severely impacted waterways.

For a year, we have collaborated closely with Norwell and Hanover to figure out how their water supply wells impact Third Herring Brook, and what can be done about it.

The first phase of our work is now over: figuring out how the water is used, by whom, when and how much; and then building a model of water withdrawals that can represent the reality of how they impact Third Herring Brook.

Just as with our similar work with Scituate, our customer review demonstrated that it is the top 25% of water users who account for a disproportionate level of withdrawals (49%); and just as with Scituate our model of the system will allow us to test how different scenarios of water conservation, or different pumping plans, will improve stream flow.

Like so many of our programs, this will be a long and step by step process; but as so often has been the case, we are confident that this engagement with Norwell and Hanover, applying sound science, and with patience and persistence, 3rd Herring Brook will be a healthier waterway.



Progress Around the Watershed

Scituate Wastewater Treatment Spill

In late April the Scituate Wastewater Treatment Plant spilled almost a million gallons of partially treated sewage into the Herring River, closing the North and South Rivers shellfish beds. And back in February another 1.8 million gallons spilled closing the shellfish beds for a month. The first spill was due to coastal flooding during a winter storm, the second in April was due to mechanical failure.

Scituate tries hard to manage its water resources well. We have worked closely with town leaders for years to conserve water and promote fish passage past their water supply dams on First



Herring Brook, all with considerable success. We are sure the town will do all it can to improve management of its treatment facility. And we think we can help.

Scituate's permit to operate this facility must be renewed in 2017. We are confident that our science based understanding of the waterways and our expertise in water testing can be of assistance in shaping the conditions on this permit.

We met with town officials recently to discuss the spills, their public notification process, and water quality testing in the event of a spill. We proposed a collaborative approach to drafting the permit application, relying on early communication and engagement to shape permit terms rather than just comment on almost-final drafts late in the process.

This approach is typical of our efforts to collaborate whenever possible with our communities to achieve common goals, and we are proud of the results.

Summer Water Quality Sampling Underway

Norwell River Water Association (NRWA) has been sampling water quality at 10 sites along the North and South Rivers for 23 years to evaluate the health of the rivers. This volunteer-driven program monitors the rivers every other week from the beginning of June to the end of August.

Our volunteers monitor for both swimming and shellfishing standards, each of which have specific concentrations of fecal coliform and enterococci bacteria that are considered safe for these different activities.

Ralph Butler and Andrea Miller, longtime Riverwatch volunteers, conducted our June 2nd sampling at 5:30 am. When asked why on earth they would get up at the crack of dawn to do this work, Ralph replied, "We have to monitor the water quality so we have healthy rivers!"

Shellfish bed sampling sites include North River Marine, Damon's Point and North River Mouth; however, the shellfish beds are seasonally closed from June 1 to November 1 because water quality in the closed months does not consistently meet the shellfishing standards...at least not yet, we are working on it!

June water quality met all swimming and shellfishing standards with the exception of one location - Corn Hill Lane in Marshfield on June 2nd - which was just above the swimming standards. We publish the results of our water quality sampling online. To stay up to date sign up for The Rivers Mouth email news.

The Riverwatch water quality monitoring program is generously supported by an anonymous donor and the Norwell Women's Club. Thank you to our sponsors for helping us keep the rivers clean and safe for swimming and boating!



Herring Return to Pembroke and Norwell in Higher Numbers, But Not to Marshfield and Scituate

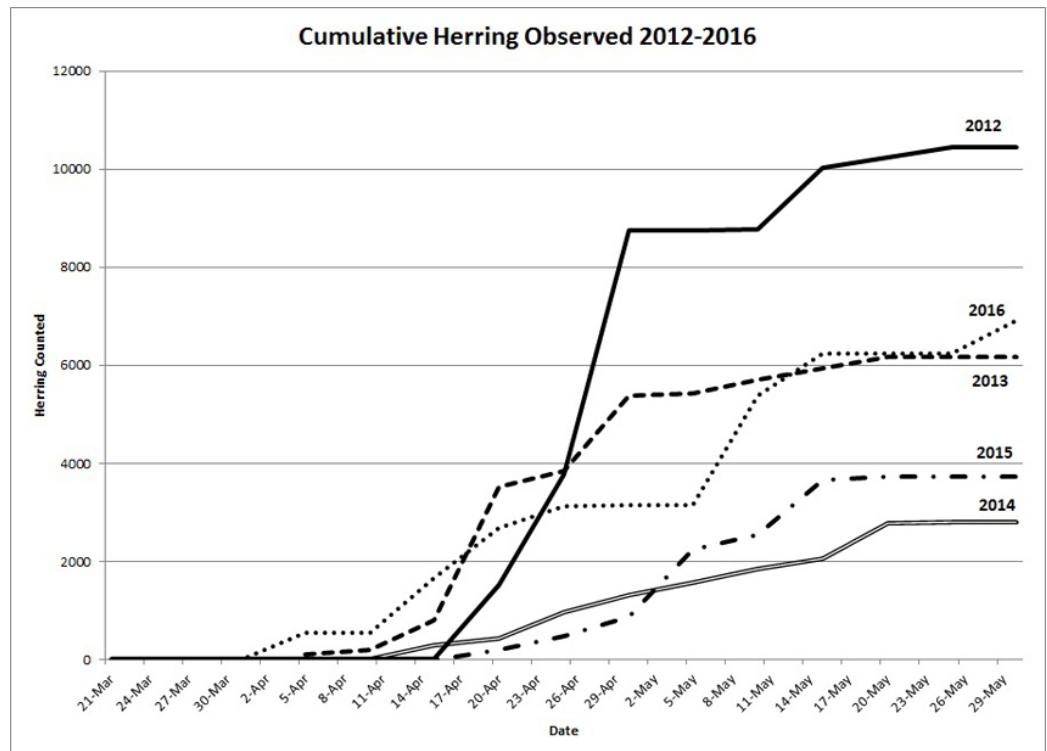
NSRWA recruited and trained 68 citizen scientist volunteers this year to count river herring migrating into First Herring Brook in Scituate, Third Herring Brook in Norwell and Hanover, Herring Brook in Pembroke, and the South River in Marshfield. From March 28th to May 31st volunteers spent over 193 hours in 10-minute intervals counting over 9,516 fish.

Counts at First Herring Brook in Scituate were low, similar to recent years since flow was restored to the Old Oaken Bucket fish ladder in 2012. Only 4 fish were seen this year in the fish ladder with the first fish noted on March 29th and last on April 19th.

The herring at Third Herring Brook were late compared to previous years with the first sighting (43 fish) being May 9th, the peak (1,340 fish) on May 11th, and the final sighting (12 fish) May 14th. Still, Third Herring Brook managed to have its highest herring count yet, reaching over 2,599 fish.

Herring Brook is certainly our most robust population, reaching 6,906 herring observed by counters (the second highest year, behind 2012's 10,449 count). The first sighting (86 fish) at Herring Brook was April 1st, counts then peaked (191 fish) on April 17th, and the final sighting (75 fish) was May 30th. Herring Brook is the only location where substantial counts and the presence of a fish ladder allow a provisional population estimate to be made. This year the population of Herring Brook is estimated at 89,712 +/-11,292 based on volunteer counts. This is lower than the counts from the electronic counter on Herring Brook, due to missed fish that passed before 7am or after 7pm, when volunteers are not counting.

Volunteers at the South River counted 912 herring downstream of the Veterans Memorial Park fish ladder, beginning April 13th, peaking May 27th, and concluding June 2nd; however, consistent with previous years, no herring were seen using the fish ladder to get upstream of the dam. The fish ladder is very sensitive to changes in flow and hard to manage but frankly we are not sure why the herring seem averse to using it. We had this ladder "fixed" by the Massachusetts Division of Marine Fisheries several years ago but clearly there is still something keeping



the fish from passing this dam. We will be providing our information to state fish biologists and continue to work with the town of Marshfield to determine the best course of action for this dam.

The NSRWA Herring Count Program is supported by the Massachusetts Bays Program South Shore and members like you!

NSRWA's Summer Calendar of Outdoor Exploration and Recreation Activities

Our events require registration and payment online unless otherwise noted.

We hope to offer more outdoor activities - stay tuned to you email!

NSRWA's 26th Great River Race

Saturday July 30th

Registration and Race Details are available online.

This annual family friendly fun 7+ mile paddling event is a great way to enjoy and see the river. If you can paddle, you can participate! Race starts at 9 am from the Bridge St bridge in Norwell. This year you can help us keep the rivers healthy by becoming a fundraiser yourself and ask your friends to sponsor you.

Yoga at the River's Edge

Saturdays • 8:30 - 10 am • June 18 through September 10
Various locations on the rivers.

\$10 pp NSRWA members, \$15 for non-members. No registration required.



NSRWA 2016 New Boat Series: Exploring the Science of Our Watershed

Explore by boat the geology, ecology and maritime archeology of the rivers with experts in each of these disciplines. Cost for each tour is \$50 for members, \$75 for non-members (includes membership). Registration online. Space is limited to 6.

Ecology of the Salt Marsh

Thursday August 4th • 1-3 pm

Join Dr. Sara Grady, NSRWA's Watershed Ecologist, on an exploration of the ecology of our salt marshes. She will explain how they formed, their unique vegetation and why they are so important to preserve.

Guided Pontoon Boat Tours on the North River

Discover the Nature and History of the North River on the NSRWA's Pontoon Boat

Guided Pontoon Boat Tours: 2 hour tours leaving from Roht Marine. Includes professional captain and a historian/naturalist.

Cost is \$360 (includes 2 memberships)/\$300 for members for up to 6 passengers. To book one of these tours visit nsrwa.org to fill out a scheduling inquiry form and our captain will get back to you within 24 hours. For scheduling inquiries please fill out our online inquiry form or email your phone number to Captain@nsrwa.org for a call back.

Kayaking on the Rivers (Kids & Adults 8+)

SCENIC TOUR

Cost per Member: \$50 (includes all kayaking equipment)/

Non members: \$75 (includes NSRWA Membership)

- Saturday, July 23; 2:30-5:00pm
- Saturday, August 20; 1:30-4:00pm

NORTH RIVER HISTORIC TOUR

Cost per Member: \$70 (includes all kayaking equipment)/

Non members: \$95 (includes NSRWA Membership)

- Saturday, August 6; 1:00-5:00pm

Connecting Kids with our Rivers



More scenes from this summer's EcoTour with environmental science students from the South Shore Vocational Technical High School in Hanover and Rockland High School. See story, page 1.

Thank you to all of our sponsors for the
2016 Great River Race and the NSRWA Golf Outing!



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MONAHAN'S MARINE
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And thank you to McGreal's Tavern for hosting the Great River Race awards celebration!



RiverWatch

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- How Many River Herring Were There this Year?
- Explore the rivers with us!



Connect with us on Facebook

**Golf to Benefit NSRWA's
Healthy Rivers Program**

**Monday, September 12 at 8:30am
Widow's Walk Golf Course, Scituate
Register at nsrwa.org**

\$125.00 per golfer includes barbecue luncheon buffet.

Sponsor a Hole signs are available for \$100 per sign or 6 for \$500

There will be a variety of prizes and raffles.

Proceeds from this event will directly benefit the NSRWA's annual Healthy Rivers program to monitor, advocate for and restore our rivers.

Tickets for both events Now Available Online!



**Monday, September 26 at
the Mill Wharf**

Join us for this annual foodie fundraising event that supports the watershed educational programs of the NSRWA. Guests enjoy:

- Amazing food from local restaurants
- Wine and beer samples and
- Live jazz!

Tickets are \$70 pp online/\$75 at the door. Proceeds from this event will directly benefit the North and South Rivers Watershed Association's annual environmental educational programs.